

**REMARKS**

Claims 1-24 are pending.

35 U.S.C. § 101 Rejections

In the present Office Action, claims 1-24 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the Examiner states:

“The claimed invention is directed to non-statutory subject matter. Claims 1,7, and 18 include non-functional descriptive material “data structure” and claim 13 includes “data packet”. The claim language of “data structure” and “data packet” are examples that merely store or outputted by a computer without any functional interrelationship with the computer, and thus they do not impart any functionality to the computer. Explanation/Correction is required.”

However, as discussed below, Applicant submits that each of the pending claims satisfy section 35 U.S.C. § 101. Accordingly, Applicant traverses the above rejections and requests reconsideration.

For ease of discussion, reference is made to the USPTO Examination Guidelines for Computer-Related Inventions (hereinafter “Guidelines”). While the Guidelines are in fact merely a guide for purposes of examination, it is believed the present claims are readily shown to be statutory by reference thereto.

Generally speaking, it appears that each of the independent claims has been rejected due to the presence of the term “data structure” or “data packet” in the claims. However, Applicant submits these rejections are clearly erroneous.

Page 8 of the USPTO Examination Guidelines for Computer-Related Inventions (hereinafter “Guidelines”) states:

“Claims to computer-related inventions that are clearly non-statutory fall into the same general categories as non-statutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material.””

Accordingly, claims to computer-related inventions may be seen to be “directed to non-statutory subject matter” when what is claimed represents natural phenomena or abstract ideas.

In contrast to the above non-statutory subject matter, if a claim defines a useful machine or manufacture by identifying the physical structure of the machine or manufacture in terms of its hardware or hardware and software combination, it defines a statutory product. (Guidelines, IV.B.2.(a)).

The nature of the present claim rejections is not entirely clear to the Applicant. It appears that the rejection assumes the claims are for a data structure, or data packet, per se. However, as discussed below, this is clearly not the case. Rather, each of the claims are directed to statutory subject matter.

Claim 1 is not in any sense a claim to magnetism, an abstract idea, or law of nature. In contrast, claim 1 is clearly directed to a useful machine or manufacture - a real, tangible, system of hardware and/or software configured to perform a specific function. For example, claim 1 recites:

“A background memory manager (BMM) for managing a memory in a data processing system, the BMM comprising:  
circuitry for transferring data structures to and from an outside device and to and from a memory;  
a memory state map associated with the memory; and  
a communication link to a processor;

characterized in that the BMM manages the memory, determining if each data structure fits into the memory, deciding exactly where to place each data structure in memory, performing all data transfers between the outside device and the memory, and maintaining the memory state map according to memory transactions made, and informing the processor of new data and its location.” (emphasis added).

Therefore, claim 1 is directed to a memory manager in a data processing system, and identifies its physical structure. Such structure comprises numerous tangible elements including: circuitry for transferring data structures, a memory state map, and a communication link to a processor. There is nothing abstract about the claim. Rather, the recited BMM product comprises hardware for managing a memory in a data processing system. Consequently, Applicant submits claim 1 is clearly identified as being statutory in view of the Guidelines. Similarly, each of independent claims 7, 13, and 18 are clearly directed to statutory subject matter. For example, claim 7 is directed to a data processing system comprising a processor, a memory, and memory manager. Claim 13 is directed to a network packet router that includes an I/O device, a processor, a memory, and memory manager. Finally, claim 18 is directed to a method for managing a memory in a data processing system with a processor.

In addition to the above, Applicant submits the mere presence of a recited data structure or data packet does not thereby render an otherwise statutory claim non-statutory. By way of analogy, and as noted in the Guidelines, when computer programs are claimed as part of an otherwise statutory manufacture or machine, the claim remains statutory irrespective of the fact that a computer program is included in the claim. Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material *per se* and hence non-statutory. (Guidelines, IV.B.1.(a)). The present claims, when taken as a whole, are clearly not directed to a mere data structure or data packet.

In view of the above, Applicant submits each of the independent claims meet the requirements of 35 U.S.C. § 101. Each of dependent claims 2-6, 8-12, 14-17, and 19-24 likewise meet the requirements of 35 U.S.C. § 101. Accordingly, Applicant requests withdrawal of the rejections.

Should the examiner continue to believe the claims are not statutory in view of 35 U.S.C. §101, the below signed representative requests a telephone interview to facilitate both an understanding of the examiner's basis for such a rejection and a resolution.

**CONCLUSION**

Applicant submits the application is in condition for allowance, and notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Applicant(s) hereby petition for such an extension.

Respectfully submitted,

/James W. Huffman/

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James Huffman  
Reg. No. 35,549  
ATTORNEY FOR APPLICANT(S)